

IN THE CLAIMS

1. (original) A method for detecting an anomaly, said method comprising:
performing a computed tomography (CT) scout scan to obtain data; and
supplying the obtained data to a radiographic computer aided detection (CAD) algorithm.
2. (original) A method in accordance with Claim 1 further comprising:
displaying results from the CAD algorithm to a user; and
displaying a CT scout image generated from the obtained data to the user.
3. (original) A method in accordance with Claim 1 further comprising:
determining a confidence level of the CAD algorithm;
comparing the determined confidence level to a threshold; and
performing a second CT scout scan when the determined confidence level is less than the threshold.
4. (original) A method in accordance with Claim 1 further comprising:
determining a confidence level of the CAD algorithm;
comparing the determined confidence level to a threshold;
performing a volumetric CT scan when the determined confidence level is less than the threshold;
generating at least one Digitally Reconstructed Radiograph (DRR) from the volumetric CT scan; and

supplying the DRR to the radiographic CAD algorithm.

5. (original) A method in accordance with Claim 1 further comprising:
determining a confidence level of the CAD algorithm;
comparing the determined confidence level to a threshold;
performing a volumetric CT scan when the determined confidence level is less than the threshold;

generating at least one Digitally Reconstructed Radiograph (DRR) from the volumetric CT scan; and
displaying the DRR.

6. (original) A method in accordance with Claim 4 further comprising
acquiring an x-ray projection image; and
mapping the DRR and results from the radiographic CAD algorithm onto an x-ray projection space.

7. (previously presented) A method for detecting an anomaly, said method comprising:

performing a computed tomography (CT) volumetric scan to acquire CT data;
generating at least one Digitally Reconstructed Radiograph (DRR) from the acquired CT data;
providing the DRR to a radiographic computer aided detection (CAD) algorithm;
determining a confidence level of the CAD algorithm;

comparing the determined confidence level to a threshold;

performing a second volumetric CT scan when the determined confidence level is less than the threshold;

generating at least one Digitally Reconstructed Radiograph (DRR) from the second volumetric CT scan; and

providing the DRR from the second volumetric CT scan to the radiographic CAD algorithm.

8. (original) A method in accordance with Claim 7 further comprising:
 - acquiring an x-ray projection image; and
 - mapping the DRR and results from the radiographic CAD algorithm onto an x-ray projection space.
9. (original) A method in accordance with Claim 7 further comprising displaying results from the radiographic CAD algorithm with a corresponding CT slice.

10. (canceled)
11. (currently amended) A method in accordance with ~~Claim 10 further~~ Claim 7 further comprising:
 - acquiring an x-ray projection image; and
 - map the DRR from the second volumetric CT scan and results from the radiographic CAD algorithm regarding the DRR from the second volumetric CT scan onto an x-ray projection space.

12. (previously presented) A Computed Tomography system comprising:
 - an x-ray source;

an x-ray detector; and

a computer operationally coupled to said x-ray source and said detector, said computer configured to:

execute a radiographic Computer Aided Detection (CAD) algorithm on Digitally Reconstructed Radiograph (DRR) data derived from a first CT scan of an object;

perform a scout scan of the object using said source and detector to generate CT scout scan data; and

execute the radiographic CAD algorithm on the generated CT scout scan data.

13. (previously presented) A system in accordance with Claim 12, wherein to execute a radiographic CAD algorithm said computer further configured to:

generate a plurality of Digitally Reconstructed Radiographs (DRR) from CT data; and

execute the radiographic CAD algorithm on the generated DRR.

14. (canceled)

15. (original) A system in accordance with Claim 12, wherein said computer further configured to:

compare a confidence level of the radiographic CAD algorithm with a predetermined threshold; and

perform a second CT scan of the object when the confidence level is below the predetermined threshold.

16. (original) A system in accordance with Claim 12, wherein to execute a radiographic CAD algorithm, said computer further configured to:

perform a volumetric CT scan of the object to generate volumetric CT data;
generate a plurality of Digitally Reconstructed Radiographs (DRR) each in a different orientation;
execute the radiographic CAD on each DRR to obtain results;
map the obtained results on the volumetric CT data; and
display the volumetric CT data including the mapped results.

17. (original) A system in accordance with Claim 15, wherein to perform a second CT scan said computer further configured to:

perform a volumetric CT scan of the object to generate volumetric CT data;
generate a plurality of Digitally Reconstructed Radiographs (DRR) each in a different orientation;
execute the radiographic CAD on each DRR to obtain results;
map the obtained results on the volumetric CT data; and
display the volumetric CT data including the mapped results.

18. (original) A system in accordance with Claim 17, wherein to execute a radiographic Computer Aided Detection (CAD) algorithm, said computer configured to execute a radiographic Computer Aided Detection (CAD) algorithm on data derived from a first CT scan of an object, wherein the first CT scan comprises a CT scout scan.

19. (original) A system in accordance with Claim 17, wherein to execute a radiographic Computer Aided Detection (CAD) algorithm, said computer configured to execute a radiographic Computer Aided Detection (CAD) algorithm on data derived from a first CT scan of an object, wherein the first CT scan comprises a CT volumetric scan.

20. (previously presented) A computer readable medium encoded with a program configured to instruct a computer to execute a radiographic Computer Aided Detection (CAD) algorithm on Digitally Reconstructed Radiograph (DRR) data derived from a CT scan of an object;

obtaining an x-ray projection image;

supplying the obtained x-ray projection image to a computer aided detection (CAD) algorithm;

displaying results of the CAD algorithm on at least one of a Computed Tomography (CT) scout image and a Digitally Reconstructed Radiograph (DRR);

supplying the CT scout image to the computer aided detection (CAD) algorithm;

registering results from the CAD algorithm regarding the CT scout image with results from the CAD algorithm regarding the x-ray projection image; and

displaying the registered results regarding both the CT scout image and the x-ray projection image in a combined display.

21. (canceled)

22. (canceled)

23. (original) A method in accordance with Claim 22 wherein said displaying comprises displaying the registered results regarding both the CT scout image and the x-ray projection image in a combined display such that a user can differentiate the results from the results from the CAD algorithm regarding the CT scout image from the results from the CAD algorithm regarding the x-ray projection image.

24. (previously presented) A method for detecting an anomaly, said method comprising:

performing a volumetric CT scan of an object;
generating at least one digitally reconstructed radiograph (DRR) from the volumetric CT scan; and
supplying the DRR to a radiographic computer aided detection (CAD) algorithm;
determining a confidence level of the CAD algorithm;
iteratively performing a volumetric CT scan, generating at least one DRR, providing the DRR to the radiographic CAD algorithm, and determining a confidence level of the results until the confidence level exceeds a threshold.

25. (canceled)
26. (canceled)
27. (original) A method for detecting an anomaly, said method comprising:
 - performing a volumetric CT scan of an object to obtain CT data;
 - obtaining an x-ray projection of the object;
 - supplying the CT data to a CAD algorithm to obtain CT CAD results;
 - supplying the x-ray projection to a CAD algorithm to obtain x-ray CAD results; and
 - displaying the CT CAD results with the x-ray CAD results in a combined display.
28. (original) A method in accordance with Claim 27 wherein said displaying comprises displaying the CT CAD results with the x-ray CAD results in a combined display such that a user can differentiate the CT CAD results from the x-ray CAD results.

29. (original) A method in accordance with Claim 27 wherein supplying the CT data to a CAD algorithm to obtain CT CAD results comprises:

generating at least one digitally reconstructed radiograph (DRR) from the volumetric CT scan; and

supplying the DRR to a radiographic computer aided detection (CAD) algorithm to obtain CT CAD results.

30. (original) A computer readable medium embedded with a program configured to instruct a computer to:

receive CT data regarding a volumetric CT scan of an object;

receive an x-ray projection of the object;

perform a CAD analysis of the received CT data to generate CT CAD results;

perform a CAD analysis of the received x-ray projection to generate x-ray CAD results; and

combine the CT CAD results with the x-ray CAD results.